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EXAMINER

SHERMAN, STEPHEN G

ART UNIT	PAPER NUMBER
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2629

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/553,352	Applicant(s) TOKIMOTO, TOYOSHI	
	Examiner STEPHEN G. SHERMAN	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is in response to the After Final amendment filed 9 March 2010. Claims 1-25 are pending.

Response to Arguments

2. Applicant's arguments, see pages 10-12 of the response, filed 9 March 2010, with respect to claims 1-25 have been fully considered and are persuasive. The rejection of claims 1-25 has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the Goode et al. (US 5,966,162) and Kang (US 2003/0200551) references.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites that the visual disturbance means starts to hide the disturbance when a delay time from the receipt of the image data elapses from a time point of

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acquiring the switching-related data, however, claim 6, which depends from this claim, then recites that the visual disturbance means starts to hide the disturbance when a certain time elapses, which is shorter than the delay time... Thus it is unclear when the hiding unit actually starts to hide the disturbance since claim 6 contradicts claim 5 from which it depends, and thus the examiner cannot possibly understand from the unclear claim language what the applicant is actually trying to claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 7, 8, 14, 21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Goode et al. (US 5,966,162).

Regarding claim 7, Goode et al. disclose a display device that displays an image based on image data supplied from a center device (Figure 1 shows the display device as display 110 and box 108, which displays an image based on image data sent from the "center device" which is the comm-network 106, session manager 104 and information server 102.), the image data being encoded by the center device (Column 4, line 23), the display device comprising:

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a receiver means for receiving data from the center device (Figure 1, 120);

a decoder for decoding the image data having been encoded (Column 4, lines 5-33); and

a visual disturbance hiding unit that hides disturbance of the image caused by on account of image switching of the image data by the center device (Figures 1 and 2 and column 4, line 34 to column 5, line 63),

the visual disturbance hiding unit determining when to stop hiding the disturbance, in accordance with a time point at which the display device receives, via the receiver, a first stamp which is generated when the image data switched by the center device is encoded and which indicates time information for synchronizing encoding performed by the center device with decoding performed by the decoder (Column 4, lines 5-33 explain that the image data is compressed using MPEG-2 compression, and column 6, lines 9-13 explain that when the new information stream is received and begins to be decoded that the image is faded out, i.e. the image stops being hidden. Thus, since MPEG-2 compressed image data has associated time-stamps generated during encoding which are sent with the data stream, particularly a PCR (program clock reference) which allows the decoder to present synchronized content, [which applicant's describe as their "first time stamp" in their specification] then since this time stamp will be received when the new information is received, and the hiding unit stops hiding the image when the data is received, then the hiding is stopped "in accordance with a time point" at which the PCR is received.).

Regarding claim 8, Goode et al. disclose the display device as defined in claim 7, wherein, a time when the visual disturbance hiding unit stops hiding the disturbance is determined in accordance with a time point of acquiring the first time stamp and a second time stamp indicating when the decoder starts to decode the image data (As explained above, MPEG-2 with contain time stamps, and particularly besides the PCR time stamp described above, a DTS (Decoding Time Stamp) which indicates the exact moment where a video frame or an audio frame has to be decoded or presented to the user respectively [which applicant's describe as their "second time stamp" in their specification]. And, just as explained above, since the hiding is stopped when the new information is received, then it is done in accordance with a time point of receiving both time stamps.).

Regarding claim 14, please refer to the rejection of claims 7 and 8, and furthermore Goode et al. also disclose the center device comprising a transmitter (Figure 1 show information server 102, session manager 104 and the comm-network 106 communicating with each other and the transceiver 120, thus inherently there is a transmitter for transmitting the information.), an image switching unit switching the image data (Figure 1, 102), an encoder configured to encode the image data (As explained above, MPEG-2 is used, and as such, inherently there will be an encoder to encode the data before it is transmitted.), and a time stamp transmission controller (Figure 1, 114, where sine the time stamp information will be sent with the data, and the

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controller controls the transmission of the data, then the controller will control the transmission of the time stamps.).

**The examiner notes that although this claim was not restricted, it does not include any limitations regarding the hiding of disturbance, which is what the applicant's indicate is their invention.*

Regarding claim 21, this claim is rejected under the same rationale as claim 7.

Regarding claim 23, this claim is rejected under the same rationale as claim 14.

**The examiner notes that although this claim was not restricted, it does not include any limitations regarding the hiding of disturbance, which is what the applicant's indicate is their invention.*

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

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3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-5, 9-13, 15-20, 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goode et al. (US 5,966,162) in view of Kang (US 2003/0200551).

Regarding claim 1, Goode et al. disclose a display device that displays an image based on data supplied from a center device (Figure 1 shows the display device as display 110 and box 108, which displays an image based on image data sent from the "center device" which is the comm-network 106, session manager 104 and information server 102.), the display device comprising:

a receiver receiving data from the center device (Figure 1, 120); and

a visual disturbance hiding unit that hides disturbance in the image caused by image switching, in response to the display device receiving, via the receiver, switching-related data indicating information with regard to the image switching of the image data by the center device (Figures 1 and 2 and column 4, line 34 to column 5, line 63, which explains that the "visual disturbance" is hidden in response to the receiver receiving from the user a selection of any function that must be implemented by the server, i.e. "switching-related data indicating information with regard to the image switching of the image data by the center device.").

Goode et al. fails to teach of the switching-related data being transmitted from the center device (i) as an acknowledgement of receiving a request from the display

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device for performing the image switching, or (ii) after the center device acknowledges the request for the image switching.

Kang discloses a set top unit that receives image data from a server (Figure 3) where switching-related data is transferred from the server (i) as an acknowledgement of receiving a request from the set top box for performing the image switching, or (ii) after the server acknowledges the request for the image switching (Figure 3).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the acknowledgement teachings of Kang to cause the visual disturbance hiding unit of Goode et al. to hide the disturbance of the image instead of the acknowledgement taught by Goode et al. (Figure 2, 204) in order to achieve the predictable result of hiding the visual disturbance.

Regarding claim 2, Goode et al. and Kang disclose the display device as defined in claim 1, wherein, the switching-related data is transmitted when the center device completes the image switching (Figure 3 of Kang shows that the switching related data is transmitted when the server completes the image switching since the switching related data is the switched image data.).

Regarding claim 3, Goode et al. and Kang disclose the display device as defined in claim 1.

Goode et al. also disclose wherein, a period during which the visual disturbance hiding unit hides the disturbance is set in accordance with a delay time from receipt of the image data to display of the image (Figure 2, steps 205-212.).

Regarding claim 4, Goode et al. and Kang disclose the display device as defined in claim 1.

Goode et al. also disclose wherein the image data is encoded data (Column 4, line 23), the display device further comprising:

a decoder that decodes the image data having been encoded (Column 4, lines 5-33),

a period during which the visual disturbance hiding unit hides the disturbance being set in accordance with a period required for decoding the image data by the decoder (Column 6, lines 9-13).

Regarding claim 5, Goode et al. and Kang disclose the display device as defined in claim 1.

Goode et al. also disclose wherein, the visual disturbance hiding unit starts to hide the disturbance when a delay time from receipt of the image data to display of the image elapses from a time point of acquiring the switching-related data (Figure 2, steps 205-212.).

Regarding claim 9, Goode et al. and Kang disclose the display device as defined in claim 1.

Goode et al. also disclose wherein, the visual disturbance hiding unit hides the disturbance of the image by stopping displaying the image (Figure 2 and column 5, lines 33-63).

Regarding claim 10, Goode et al. and Kang disclose the display device as defined in claim 1.

Goode et al. also disclose the display device further comprising:
a transmitter transmitting data to the center device (Figure 1, 120); and
a switching command transmission controller controlling and causing transmitter to send, to the center device, switching demand data that demands switching of the image data (Figure 1, 122. See column 5, lines 13-20).

Regarding claim 11, please refer to the rejection of claims 1 and 10, and furthermore Goode et al. also disclose the center device comprising a transmitter (Figure 1 show information server 102, session manager 104 and the comm-network 106 communicating with each other and the transceiver 120, thus inherently there is a transmitter for transmitting the information.), an image switching unit switching the image data (Figure 1, 102), and a switching related data transmission controller (Figure 1, 114).

Regarding claim 12, this claim is rejected under the same rationale as claim 2.

Regarding claim 13, Goode et al. and Kang disclose the center device as defined in claim 11.

Goode et al. further comprising an encoder configured to encode the image data, the transmitter transmitting, to the display device, the image data encoded by the encoder (As explained above, MPEG-2 is used, and as such, inherently there will be an encoder to encode the data before it is transmitted.).

Regarding claim 15, Goode et al. and Kang disclose the center device as defined in claim 11.

Goode et al. disclose the center device further comprising:

a receiver receiving data from the display device (Figure 1 show information server 102, session manager 104 and the comm-network 106 communicating with each other and the transceiver 120, thus inherently there is a receiver for receiving the information.);

a switching demand acquiring unit configured to acquire, via the receiver, switching demand data that demands switching of the image data (Figure 1 and column 5, lines 13-20); and

an image switching controller controlling and causing the image switching unit to switch the image data in accordance with the switching demand data obtained by the switching demand acquiring unit (Figure 1 and column 5, lines 13-20).

Regarding claim 16, Goode et al. and Kang disclose the center device as defined in claim 11.

Goode et al. also disclose wherein, the image switching unit is a tuner for selecting image data being currently broadcast (Figure 1, 102).

Regarding claim 17, Goode et al. and Kang disclose the center device as defined in claim 11.

Goode et al. also disclose wherein, the image switching unit is a selector that selects one of sets of image data supplied from outside (Figure 1, 102).

Regarding claim 18, Goode et al. and Kang disclose in mage display system, wherein the center device defined in claim 11 sends the image data to the display device, and the display device displays an image based on the image data (Figure 1).

Regarding claim 19, Goode et al. and Kang disclose the image display system as defined in claim 18, wherein the display device is attachable to the center device (Inherently anything is “attachable” to anything, i.e. by using glue, tape, etc.).

Regarding claim 20, this claim is rejected under the same rationale as claim 1.

Regarding claim 22, this claim is rejected under the same rationale as claim 11.

Regarding claim 24, Goode et al. and Kang disclose a computer-readable recording medium encoded with instructions, where the instructions when executed by a computer cause the computer to perform the method recited in claim 20 (Figure 2 of Goode et al.).

Regarding claim 25, this claim is rejected under the same rationale as claim 24.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN G. SHERMAN whose telephone number is (571)272-2941. The examiner can normally be reached on M-F, 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen G Sherman/
Examiner, Art Unit 2629

23 March 2010